

WHAT IS CLAIMED IS:

1. An apparatus, comprising:

optical pick-up means for recording data;

driver means for generating a driving signal for driving the optical pick-up
means to adjust an optical power level of the optical pick-up means; and

control means for generating a main pulse for the driving signal and a sub
pulse having a prescribed width, wherein the sub pulse being generated at a prescribed time
prior to generating the main pulse.
2. The apparatus as set forth in claim 1, wherein the sub pulse is overlapped with
the main pulse for approximately the prescribed time.
3. The apparatus as set forth in claim 1, wherein the sub pulse has substantially
the same signal level as that of the main pulse.
4. The apparatus as set forth in claim 1, wherein the driver means is driven by
signals indicative of a magnitude and ON/OFF timings of the main pulse and signals
indicative of a magnitude and ON/OFF timings of the sub pulse.

5. The apparatus as set forth in claim 1, further comprising:
storage means for storing variables indicative of respective start and end times and respective magnitudes of the main pulse and the sub pulse according to sizes of respective recording pits,
wherein the control means generates the main pulse and the sub pulse using a subset of the variables corresponding to each size of the recording pits.
6. The apparatus as set forth in claim 5, wherein the sub pulse has a constant width regardless of the sizes of the recording pits.
7. The apparatus as set forth in claim 1, further comprising:
storage means for storing variables indicative of respective start and end times and respective magnitudes of the main pulse and the sub pulse according to individual disk manufacturers,
wherein the control means generates the main pulse and the sub pulse using corresponding variables of the variables for each disk manufacturer.
8. A method for driving an LD (Laser Diode) for recording data on an optical disk, comprising :
checking pre-stored variables according to respective manufacturers and respective recording pits of the optical disk;

generating a main pulse based on the checked variables and a sub pulse having a prescribed width, the sub pulse being generated at a prescribed time prior to generating the main pulse;

outputting a driving signal for driving an LD contained in an optical pick-up unit upon receiving the main pulse and the sub pulse; and

recording the data on the optical disk at an optical power level adjusted by the driving signal.

9. The method as set forth in claim 8, wherein the sub pulse has substantially the same signal level as the main pulse, and has a pulse width less than a drive period of the LD for a smallest recording pit.

10. The method as set forth in claim 8, wherein the checked pre-stored variable are indicative of a magnitude and ON/OFF timings of the main pulse, and variables indicative of a magnitude and ON/OFF timings of the sub-pulse.

11. A method for recording information on an optical storage medium, comprising:

generating a sub-pulse for driving a recording unit;

generating a main pulse for driving the recording unit; and

controlling the recording unit for recording data based on the sub-pulse and main pulse, wherein the sub-pulse is generated before the main pulse.

12. The method of claim 11, wherein the sub-pulse is generated a predetermined time before the main pulse, and wherein said predetermined time is based on a duty ratio of the sub-pulse.

13. The method of claim 12, wherein the duty ratio is 50%.

14. The method of claim 12, further comprising:
detecting the duty ratio based on timing data stored on the optical storage medium.

15. The method of claim 11, wherein the sub-pulse is generated based on a predetermined time before the main pulse, and wherein said predetermined time is based on a type of optical storage medium or a width of the sub-pulse.

16. The method of claim 15, wherein said width is equal to $T/32$, wherein T corresponds to a drive period of the recording unit for a smallest recording pit.

17. The method of claim 15, further comprising:
detecting said width based on timing data stored on the optical storage medium.

18. The method of claim 11, further comprising:
reading information from the optical storage medium; and
determining a manufacturer of the optical storage medium based on said information.

19. The method of claim 18, wherein said information includes a start time of a lead-out area, a start time of a lead-in area or disc id from a table of contents stored on the medium.

20. The method of claim 18, further comprising:
retrieving timing information corresponding to said manufacturer; and
generating the sub-pulse a predetermined amount of time before generation of the main pulse based on the timing information.

21. An apparatus, comprising:
a processor configured to generate a sub-pulse for driving a recording unit before a main pulse for driving the recording unit; and
a driver configured to drive the recording unit to record data for an optical storage medium based on the sub-pulse and main pulse.

22. The apparatus of claim 21, wherein the processor generates the sub-pulse a predetermined time before the main pulse, said predetermined time based on a duty ratio of the sub-pulse.

23. The apparatus of claim 22, wherein the processor determines the duty ratio based on timing data stored on the optical storage medium.

24. The apparatus of claim 21, wherein the processor generates the sub-pulse a predetermined time before the main pulse, said predetermined time based on a type of optical storage medium or a width of the sub-pulse.

25. The apparatus of claim 24, wherein the processor determines said width based on timing data stored on the optical storage medium.

26. The apparatus of claim 21, further comprising:
a reading unit that reads information from the optical storage medium,
wherein the processor determines a manufacturer of the optical storage medium based on said information.

27. The apparatus of claim 26, further comprising:
a memory that stores timing information corresponding to said manufacturer;

wherein the processor generates the sub-pulse a predetermined amount of time before generation of the main pulse based on the timing information retrieved from memory.